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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kang Soo Seo

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EXAMINER

SHELEHEDA, JAMES R

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/876,793	Applicant(s) SEO ET AL.	
	Examiner JAMES SHELEHEDA	Art Unit 2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,22,25-27 and 30-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,22,25-27 and 30-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/06/09 has been entered.

Response to Arguments

2. Applicant's arguments filed 08/06/09 have been fully considered but they are not persuasive.

While applicant argues that claims 22, 34, 38, 42, 46 and 50 were not amended claims, it is noted that these claims are dependent claims. The independent claims which these claims depend upon were in fact all amended in applicant's previous response, which then results in a new combination of limitations for all of the dependent claims as well.

In this case, Uchide was presented to better disclose adding padding data to recorded content for the new narrower combination of claim limitations.

Therefore, applicant's arguments are not convincing, as applicant's previous claim amendments changed the scope of the claims and resulted in the new rejections.

On pages 10-11, applicant argues that Taira does not disclose that the cells (90) store only sub-picture data, as Taira discloses storing video, sub-picture data or audio data.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, it was Takahashi that was relied upon to disclose a system for playing back a recorded video (column 9, lines 18-31 and lines 52-61). The menus for the video include thumbnails corresponding to particular sections for the video (column 12, lines 7-62 and column 5, line 21-column 7, line 7). It is Takahashi who discloses wherein the menu data comprises only the thumbnails pictures, as his menus do not include any video or audio data.

Taira discloses a system for recording/playing back a video (movie file; column 11, lines 41-43) where the menu data files, including a group of thumbnail pictures (Fig. 5; column 11, lines 38-column 12, line 26), are stored together as a block of menu data (Fig. 5; column 11, lines 38-column 12, line 26).

Thus, the combination of Takahashi and Taira was relied upon to disclose storing the thumbnail pictures together as a block of data, as Takahashi's menu includes only

thumbnails, and not video/audio data, and Taira's system discloses storing the menu data together as a block of data.

Taira discloses where the menu cells, 90, would store video data, sub-picture data **or** audio data related to the selection (column 11, lines 47-54). Taira doesn't require the menu cells to include all of the data, as he explicitly recites the cells may *alternatively* include videos, sub-pictures **or** audio data. Thus, *in combination with Takahashi*, the menu cells would only include sub-picture (image data), as that is the only available data which is related to the menu selection (as disclosed by Takahashi).

The mere fact that Taira's system would *also* be compatible with audio and video data within the menu cell does not *require* that any audio or video data be must present and mixed with the menu thumbnails. The entirety of the claim rejections are not based solely upon Taira, but are based upon *Takahashi* being modified by Taira.

In response to applicant's arguments on pages 11-12, regarding the comparison of the "video data cell 105" to the menu cells 90", it is noted that while the "structure" of these cells may be similar, that does not indicate any sort of specific requirement that the menu cell include video or audio. For example, while Taira states that the video data cell 105 comprises a video, audio **and** sub-picture data (column 12, lines 49-58), he specifically differentiates the menu cells 90 by stating that they would include video data, audio data **or** sub-picture data (column 11, lines 50-54). Thus, the explicit teaching of Taira is that the content of the menu cell is different from the video cell, as the menu cell does not require all of the different types of content.

When combined with the teachings of Takahashi, one arrives at a system where the menu cells would only include sub-picture data, as this is the only type utilized by Takahashi's system. Therefore, applicant's arguments are not convincing.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 20, 25-27, 30-33, 35-37, 39-41, 43-45 and 47-49 rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (Takahashi) (6,483,983) (of record) in view of Taira et al. (Taira) (6,009,234) (of record).

As to Claim 20, while Takahashi discloses a computer readable medium having a data structure for managing reproduction of menu data, comprising:

a video data storing area storing one or more playback units of video data (disk area dedicated to storing recorded video; column 9, lines 18-31 and lines 52-61);

a menu data storing area storing menu data including only data for groups of thumbnail pictures corresponding to each playback units (thumbnails also recorded on the disk; column 12, lines 7-62), each thumbnail stored as a block of menu data on the computer readable medium (picture array menu; column 2, lines 32-54 and column 9, lines 8-51 and column 12, lines 32-56); and

a menu management area storing menu management information, the menu management information providing an index to menu data (column 9, lines 8-51 and column 12, lines 20-23 and 49-56), identifying the thumbnail pictures in the menu data file (stored table identifying each picture, its address, and its position in the array, disclosed at column 12, lines 32-62),

wherein the thumbnail pictures in the menu data are reproduced based on the menu management information (column 5, line 21-column 7, line 7), he fails to specifically disclose menu data files including the group of thumbnail pictures, the group of thumbnail pictures stored together as a block of menu data, the menu data file being a separate file from the menu management information.

In an analogous art, Taira discloses a computer readable medium having a data structure for managing reproduction of menu data (Fig. 4 and 5; column 8, lines 25-44 and column 11, lines 38-61) including menu data files including a group of thumbnail pictures (Fig. 5; column 11, lines 38-column 12, line 26), the group of thumbnail pictures stored together as a block of menu data (Fig. 5; column 11, lines 38-column 12, line 26), the menu data file being a separate file from the menu management information (Fig. 5; column 11, line 55-column 12, line 26) for the typical benefit of taking advantage of a known method of recording menu data, which would provide a more efficient storage/retrieval method by grouping the data together compared to a system in which the menu data was stored in plural disparate positions.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Takahashi's system to include menu data files including

a group of thumbnail pictures, the group of thumbnail pictures stored together as a block of menu data, the block corresponding to one of the menu data files, as taught in combination with Taira, for the typical benefit of taking advantage of a known method of recording menu data, which would provide a more efficient storage/retrieval method by grouping the data together compared to a system in which the menu data was stored in plural disparate positions.

Claims 30-33 correspond to Claim 20. Thus, each is analyzed and rejected as previously discussed. (**Note:** the “optical pickup” and “controller” components to read/write data of claims 31 and 33 are disclosed at column 3, line 63-column 4, line 33, column 7, lines 50-57 and column 9, lines 22-31).

As to claims 25, 35, 39, 43 and 47, Takahashi and Taira disclose wherein the controller is configured to control recording the menu management information (recording the menu data on the disk; column 5, line 21-column 7, line 16, column 9, lines 36-51 and column 12, lines 7-57), the menu management information indicating a number of reduced pictures stored in the menu data area (wherein each movie has a defined and numbered listing of pictures associated with it; see Fig. 3; column 5, line 21-column 7, line 16, column 9, lines 36-51 and column 12, lines 7-57).

As to claims 26, 36, 40, 44 and 48, Takahashi and Taira further teach the use of “head indexing,” a well-known technique in video reproduction. Head indexing is a

process by which addresses are attached to various frames in a data stream, thereby providing quick access to desired frames (i.e., the reduced pictures) in the picture array. (Col. 1, Ln. 27-44). Takahashi and Taira disclose wherein the controller is configured to control recording the menu management information (recording the menu data on the disk; column 5, line 21-column 7, line 16, column 9, lines 36-51 and column 12, lines 7-57) which provides a starting address of a frame displayed in the array, this address would, in essence, be a starting and ending address since a “frame” is a defined point (i.e., beginning and end) in the data stream. Following this logic, it would be inherent that the addresses (i.e., frames) indicate the number of frames stored on the DVD. Accordingly, Takahashi anticipates each and every limitation of Claim 26.

As to claims 27, 37, 41, 45 and 49, since each frame (i.e., thumbnail) in the array has a corresponding address identifier, it is inherent the array include said starting addresses. Accordingly, Takahashi and Taira disclose each and every limitation of Claim 27.

5. Claims 22, 34, 38, 42, 46 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi and Taira and further in view of Uchide (US 2001/0028789 A1) (of record).

As to claims 22, 34, 38, 42, 46 and 50, as indicated above, Takahashi and Taira disclose each and every claim limitation except wherein the menu data area records padding data between at least two of the blocks of menu data. However, within the

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same field of endeavor, Uchide discloses a similar system wherein padding packets are inserted (i.e., appended) between other packets within the video stream (see Fig. 4-5; paragraph 51) prior to recording on a recording medium (3; Fig. 1; paragraph 49-53) for the purpose of ensuring that the stream is correctly recorded by compensating for any differences in the encoding rate vs. the recording rate (paragraphs 48-52). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of Applicant's invention to combine the systems of Takahashi and Uchide in order to ensure that the stream is correctly recorded by compensating for any differences in the encoding rate vs. the recording rate.

Conclusion

6. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES SHELEHEDA whose telephone number is (571)272-7357. The examiner can normally be reached on Monday - Friday, 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Sheleheda/
Primary Examiner, Art Unit 2424

JS